It is claimed:

1. A computer-implemented system that integrates data from a plurality of biomedical development phases, comprising:

5   a database that stores data collected from the biomedical development phases,

said database further including a first metadata data structure that describes the data collected during a first biomedical development phase;

at least one first graphical user interface connected to the database that collects data during the first biomedical development phase, wherein structure of the first graphical

10   user interface is defined based at least in part upon the first metadata data structure so that the first graphical user interface collects data points as well as first metadata that is to be stored within the first metadata data structure, said first metadata describing the collected data points,

wherein at least a portion of the first metadata data structure is determined

15   based upon an issue that arises in a subsequent biomedical development phase,

wherein at least a portion of the first metadata data structure contains links to another metadata structure associated with the subsequent biomedical development phase so that an audit trail may be generated.

20   2. The system of claim 1 wherein the biomedical development phases include phases selected from the group consisting of discovery phase, clinical studies phase, Food and Drug Administration (FDA) approval phase, product release phase, and combinations thereof.

3. The system of claim 2 wherein the biomedical development phases have an approximate chronological order of discovery phase, clinical studies phase, Food and Drug Administration (FDA) approval phase, and product release phase.

4. The system of claim 2 wherein the first biomedical development phase is a discovery phase, wherein the first metadata data structure includes data for specifying how often during the first biomedical development phase test measurements were obtained and units associated with the test measurements.

5. The system of claim 4 wherein the first metadata data structure includes data for specifying data manipulations performed upon data collected during the first biomedical development phase.

6. The system of claim 5 wherein the specified data manipulations include data unit conversion operations.

7. The system of claim 4 wherein the first metadata data structure contains data that specifies interrelationships between tests conducted during the first biomedical phase.

8. The system of claim 7 wherein the specified interrelationships include at least one reason why a subsequent test was conducted in view of findings from a previous test.

9. The system of claim 4 further comprising:

a second metadata data structure contained within the database that describes the data collected during a second biomedical development phase, said second biomedical development phase occurring approximately after the first biomedical development phase.

10. The system of claim 9 further comprising:

at least one second graphical user interface connected to the database that collects data during the second biomedical development phase, wherein structure of the second graphical user interface is defined based at least in part upon the second metadata data structure so that the second graphical user interface collects data points as well as second metadata that is to be stored within the second metadata data structure, said second metadata describing the collected data points,

wherein at least a portion of the second metadata is determined based upon an issue which arises in a biomedical development phase that occurs approximately subsequently to the second biomedical phase.

11. The system of claim 10 wherein the second biomedical development phase is a clinical studies phase, wherein the second metadata data structure includes data that specifies interrelationships between tests conducted during the second biomedical development phase.

12. The system of claim 11 wherein data links exist between the first metadata stored in the first metadata data structure and the second metadata stored in the second metadata data structure in order to form an audit trail.

13. The system of claim 12 wherein the audit trail is used during an FDA approval phase to determine a biomedical product development audit trail associated with the first and second biomedical development phases.

5   14. The system of claim 13 wherein the first metadata is used during an FDA approval phase to determine how tests were conducted during the first biomedical development phase, wherein the second metadata is used during the FDA approval phase to determine how tests were conducted during the second biomedical development phase.

10   15. The system of claim 12 wherein the first metadata is used during an FDA approval phase to determine how tests were conducted during the first biomedical development phase, wherein the second metadata is used during an FDA approval phase to determine how tests were conducted during the second biomedical development phase.

15   16. The system of claim 12 wherein the first biomedical development phase is the discovery phase, wherein at least a portion of the first metadata data structure is determined based upon an issue that arises in the FDA approval phase.

17. The system of claim 16 wherein the issue that arises in the FDA approval process that
20   defines at least a portion of the first metadata data structure is an FDA requirement that patients be tested who are taking a predetermined medication.

18. The system of claim 12 wherein the second biomedical development phase is the clinical studies phase, wherein at least a portion of the second metadata data structure is determined based upon an issue that arises when a party evaluates the biomedical product associated with the second biomedical development phase.

19. The system of claim 18 wherein the third party is a party selected from the group consisting of another company division, a different company, the FDA, and combinations thereof.

20. The system of claim 1 wherein the first metadata data structure includes links between unstructured biomedical data and structured biomedical data.

21. The system of claim 20 wherein the unstructured biomedical data includes data contained in word processing documents and handwritten notes.

22. The system of claim 1 further comprising:

a second metadata data structure contained within the database that describes the data collected during a second biomedical development phase, said second biomedical development phase occurring approximately after the first biomedical development phase;

a third metadata data structure contained within the database that describes the data collected during a third biomedical development phase, said third biomedical development phase occurring approximately after the second biomedical development phase; and

a fourth metadata data structure contained within the database that describes the data collected during a fourth biomedical development phase, said fourth biomedical development phase occurring approximately after the third biomedical development phase.

5   23. The system of claim 22 wherein the first biomedical development phase is a discovery phase, wherein the second biomedical development phase is a clinical studies phase, wherein the third biomedical development phase is an FDA approval phase, wherein the fourth biomedical development phase is a product release phase.

10   24. The system of claim 23 wherein the database contains interrelationships among the metadata data structures associated with the first, second, third, and fourth biomedical development phases,

        wherein an audit trail is structured based upon at least a portion of the interrelationships to assess an adverse reaction involving a biomedical product released

15   during the product release phase.

    25. The system of claim 22 wherein the first and second metadata data structures include data structures that specify what data manipulations were performed upon data collected during their associated biomedical development phases.

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    26. The system of claim 22 wherein the first and second metadata data structures include data structures that specify interrelationships between tests conducted within their associated biomedical development phases.

27. The system of claim 1 further comprising:

a second metadata data structure contained within the database that describes the data collected during a second biomedical development phase, said second biomedical

5   development phase occurring approximately after the first biomedical development phase;

a third metadata data structure contained within the database that describes the data collected during a third biomedical development phase, said third biomedical development phase occurring approximately after the second biomedical development phase;

a fourth metadata data structure contained within the database that describes

10   the data collected during a fourth biomedical development phase, said fourth biomedical development phase occurring approximately after the third biomedical development phase; and

a web portal entry point to the database, wherein users access data contained within the first, second, third and fourth metadata data structures through the web portal entry

15   point.

28. The system of claim 27 wherein the database includes a plurality of biomedical projects, wherein the biomedical projects have their respective first and second metadata stored in the database, wherein a data warehouse contains the database.

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29. The system of claim 28 wherein a first company has rights to a first biomedical project, said system further comprising:

an identifier that identifies data and metadata as associated with the first biomedical project and owned by the first company.

30. The system of claim 27 wherein the identifier is a uniform resource locator (URL) that identifies data and metadata as associated with the first biomedical project and owned by the first company.

31. The system of claim 30 wherein a second company has rights to the first biomedical project by accessing the URL associated with the first biomedical project.

32. The system of claim 31 wherein a security mechanism is associated with the URL such that the first company is precluded from access to the data and metadata of the first biomedical project after the project's ownership is transferred from the first company to the second company.

33. The system of claim 32 wherein the security mechanism includes a user name and password mechanism.

34. The system of claim 1 further comprising:

a biomedical data warehouse that contains the database;

a genomic data warehouse that stores genomic data; and

data links between data in the biomedical data warehouse and data in the genomic data warehouse,

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wherein genomic data is used to analyze data stored in the biomedical data warehouse via the data links.

35. The system of claim 34 wherein the genomic data and its linked biomedical data are used

5   in analyzing adverse reactions associated with a released biomedical product.

36. The system of claim 34 further comprising:

a second metadata data structure contained within the database that describes the data collected during a second biomedical development phase, said second biomedical

10   development phase occurring approximately after the first biomedical development phase;

a third metadata data structure contained within the database that describes the data collected during a third biomedical development phase, said third biomedical development phase occurring approximately after the second biomedical development phase;

a fourth metadata data structure contained within the database that describes

15   the data collected during a fourth biomedical development phase, said fourth biomedical development phase occurring approximately after the third biomedical development phase,

wherein the data links associate genomic data with data contained within at least the second metadata data structure,

wherein FDA approval is sought for a biomedical product directed to people

20   with first genetic characteristics, said first genetic characteristics being identified based upon analysis of the genomic data that is associated with the data in the second metadata data structure.